Roll No. ☐☐☐☐☐☐☐☐☐☐☐☐☐   Total No. of Pages : 01

Total No. of Questions : 08

M.Tech.(IT) (2015 & Onwards)/(CSE Engg.)EI-II (2015 to 2017)   (Sem.–2)
CLOUD COMPUTING
Subject Code : MTCS-206
Paper ID : [72890]

Time : 3 Hrs.   Max. Marks : 100

INSTRUCTION TO CANDIDATES :
1. **Attempt any FIVE questions out of EIGHT questions.**
2. **Each question carries TWENTY marks.**

Q1) Define Cloud Computing. Explain, in detail, the architecture of Infrastructure as a Service (IaaS) with detailed description of its components.

Q2) Define virtualization. How does virtualization helps to implement the cloud services? Describe Virtual Machine Monitor (VMM) and Virtual Box, in detail.

Q3) a) Describe how Map Reduce can be helpful for simplified data processing on large clusters Also, discuss the features of Apache Hadoop.

     b) Discuss task partitioning and data partitioning with the help of a suitable example.

Q4) Explain, in detail, the various components of Platform as a Service (PaaS). Write the pros and cons of various PaaS solution.

Q5) a) Outline the structure of public, private and hybrid cloud. Also, mention the benefits and limitations of public cloud and private cloud,

     b) Is data synchronization and data replication necessary for cloud computing? Justify with the help of a suitable application example.

Q6) a) Differentiate traditional software development from software development for the cloud.

     b) Define Internet of Things (IoT) and mention its characteristics. Discuss the integration of IoT with Big Data and Cloud Computing.

Q7) a) Explain the framework and components of Open Stack in detail.

     b) Describe the CPU management and abstraction techniques using a hypervisor.

Q8) Write short notes on the following :

     a) Distributed File System

     b) Big Data and its V's